



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,368	04/22/2004	Daniel Gelbart	91506/MGB	7069
1333 7590 12/04/2008 EASTMAN KODAK COMPANY PATENT LEGAL STAFF 343 STATE STREET ROCHESTER, NY 14650-2201				
EXAMINER				
MUI, CHRISTINE T				
ART UNIT		PAPER NUMBER		
1797				
MAIL DATE		DELIVERY MODE		
12/04/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/829,368

Applicant(s)

GELBART, DANIEL

Examiner

CHRISTINE T. MUI

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CD/CD)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 17 September 2008 has been entered.

Response to Arguments

2. Applicant's arguments, see REMARKS, filed 17 September 2008, with respect to the rejection(s) of claim(s) 1-11 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of USP 5,619,025 to Hickman et al; USP 5,025,923 to Sanner et al.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 6, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by USP 5,619,025 to Hickman et al (submitted on the Information Disclosure Statement on 22 April 2004; herein referred 'Hickman').

5. Regarding claims 1-3, 6 and 12, the reference Hickman discloses a method for document verification. A document is provided with a spot or stripe that incorporates a large plurality of photorefractive crystals arrayed in a random manner. A document verifying apparatus includes a coherent light source such as a diode laser or a coherent beam of electromagnetic radiation to illuminate the photorefractive crystals. The document can be a credit card or a bank card that may include an alphanumeric indicia and a magnetic stripe. The stripe may be formed by mixing the crystals within a carrier liquid and printing, spraying, or painting or otherwise applying the carrier to the document. The laser that is used is arranged to direct a beam of light toward the strip, thereby eliciting the photorefractive effect that causes scattering of light rays from the stripe. A photosensor is arranged to receive the scattered light rays from the strip. The scattered light rays form stochastic images dependent on the number, nature and orientation of the crystals illuminated by the beam. This is considered to be the taggant distribution coordinates dependent on the illumination within the magnetic strip. The rays that fall on the photosensor compose a stochastic image and the image may be recorded. The document reading system includes a microprocessor and associated memory which may comprise a magnetic, optical or electronic data storage. The microprocessor may compare individual images, dependent on the number, nature and orientation of the crystals in digital format with image data stored in the memory for verification. A match indicates a valid document (see abstract, column 1, line 60-column 2, line 41, column 3, line 47-column 4, line 64). It is interpreted by the examiner

that the electronic data storage medium is considered to be RAM and the alphanumeric indicia is the registration feature.

6. Claims 7 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by USP 5,023,923 to Sanner et al (submitted on the Information Disclosure Statement on 05 October 2005; herein referred 'Sanner').

7. Regarding claims 7 and 10, the reference Sanner discloses a method for verify a document that is scanned by a system that optically senses a specific target area or aperture on a document sensing characteristics. Characteristics are either from deposits on the document in the form of imprinted material or from other fiber patterns of the document material or combinations thereof. For reliable authentication, the same aperture on the document is scanned even when using different scanning transports. The document is provided with a reference grid pattern to provide the aperture location. A two dimensional sensor array is used to dissect an image of the light transmitted through or reflected by the document to provide to video signal. A detector contains a pattern recognition circuits that analyzes the video signal from the amplifier to identify the characteristics or features that is scanned (see column 1, lines 37-60, column 2, lines 30-36, column 3, lines 43-50, column 4, lines 11-41).

8. Claims 9 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by US Publication No. 2002/0063744 to Stephens (herein referred 'Stephens').

9. Regarding claims 9 and 15, the reference Stephens discloses a document and verification system and method where an inkjet printer prints an invisible identification pattern such as a barcode on a print medium. A scanner is positioned to produce an

image of the identification image for verification use. The scanner includes a light source for illuminating the imaging zone with light including nonvisible energy components and a camera sensitive to nonvisible light from the medium to form an image of the nonvisible identification image. The ink used to print an invisible identification pattern is a UV dye and an FR/IR dye. When the UV dye is illuminated with UV light, an image is provided of the pattern which is then visible to the camera and the naked eye. The FR/IR dye is imaged using an FR/IR camera to capture the image of the barcode for verification (see abstract, [0006, 0008-0009]).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 4-5, 8, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hickman.

13. Regarding claims 4-5, the reference Hickman discloses the claimed invention except for where the verifying step is invariant to exact placement of the detector relative to the item. Hickman discloses the response of the photorefractive crystals to the laser illumination comprises of a time-varying characteristic that is dependent on the intensity and the temporal nature of the illuminator. Furthermore, a large number of "snapshots" of the time-varying image of the document are captured, using physical or electronic processes and stored electronic media to determine if the document is valid (see column 2, lines 18-41). It is interpreted by the examiner that where a large number of "snapshots" that are taken and received by the photosensor and still is capable to verify the document whether it is valid or not is considered to be invariant to placement of the detector since it is only observing the pattern of refracted light by the crystals and tolerant of errors. Despite the large number of time-varying characteristics that is dependent on the intensity and temporal nature of the illumination itself, the photosensor is still capable to verify a valid document and is considered to be tolerant of errors. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the verification step of determine the validity of a document be tolerant to errors and invariant to the placement of the detector so that one can still verify the item or document even it if not precisely placed in a specified location.

14. Regarding claims 8, 11 and 14, the reference Hickman discloses a method for document verification. A document is provided with a spot or stripe that incorporates a large plurality of photorefractive crystals arrayed in a random manner. A document verifying apparatus includes a coherent light source such as a diode laser or a coherent

beam of electromagnetic radiation to illuminate the photorefractive crystals. The document can be a credit card or a bank card that may include an alphanumeric indicia and a magnetic stripe. The stripe may be formed by mixing the crystals within a carrier liquid and printing, spraying, or painting or otherwise applying the carrier to the document. The laser that is used is arranged to direct a beam of light toward the strip, thereby eliciting the photorefractive effect that causes scattering of light rays from the stripe. A photosensor is arranged to receive the scattered light rays from the strip. The scattered light rays form stochastic images dependent on the number, nature and orientation of the crystals illuminated by the beam. The rays that fall on the photosensor compose a stochastic image and the image may be recorded. The document reading system includes a microprocessor and associated memory which may comprise a magnetic, optical or electronic data storage. The microprocessor may compare individual images, dependent on the number nature and orientation of the crystals in digital format with image data stored in the memory for verification. A match indicates a valid document (see abstract, column 1, line 60-column 2, line 41, column 3, line 47-column 4, line 64).

15. Hickman does not disclose an intermediate step of marking the item with a code related to the first data, but Hickman discloses that upon processing a first image and processing the data, image comparison may be achieved, using operation amplifiers connected in subtracting fashion and joined to signal comparator, or the image recognition process can be carried out by deriving and comparing the rate of change in sequences of images sampled from the photosensor, instead of the differences in two

images or more images (see column 4, line 65-column 5, line 19). It would have been obvious to one having ordinary skill in the art at the time the invention was made to detect a first taggant distribution, mark the item related to the first taggant distribution and then read the item at a future time and compare the distributions, so that one does not have to generate two sets at data at one time, but rather use a mark that relates to a whole set of data for easy analysis and comparison at a future time.

16. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sanner as applied to claim 7 above, and further in view of Hickman.

17. Regarding claim 13, the reference Sanner discloses the claimed invention except for where there is a radiation source for rendering the taggant detectable. Sanner discloses using a light source to detect the image of the fiber material in the document (see column 2, line 30-37). Hickman discloses using a document reader or verifier having a source of electromagnetic radiation to detect the photorefractive crystals on the magnetic strip of the item (see column 4, line 1-7). It would have been obvious to one having ordinary skill in the art at the time the invention was made to detect the fiber materials within the document material by using a source of radiation so that upon exposure to radiation, the distribution and location of the fibers in the document are easily seen with the naked unaided eye.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTINE T. MUI whose telephone number is (571)270-3243. The examiner can normally be reached on Monday-Thursday 7-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on (571) 272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CTM

/Walter D. Griffin/
Supervisory Patent Examiner, Art Unit 1797